

REMARKS

The Examiner, Mr. Hong Sol Cho, is thanked for his courtesies extended during the telephonic interview conducted October 31, 2005, and for his assistance in advancing prosecution on the merits of the present application. During the telephonic interview, independent claim 22 was discussed. The Examiner's remarks on page 8 of the June 24, 2005 Office Action were also discussed. No agreement was reached with respect to the patentability of the claims. The following amendment and remarks expand on the content of the telephonic interview.

Applicant acknowledges, with appreciation, the indication that claim 33 contains allowable subject matter. Claims 22-43 are pending in this application, with claims 22, 34 and 40 being the independent claims. Claims 22, 24, 34 and 40 have been amended. No new matter has been added. Reconsideration of the above-identified application, as amended, and in view of the following remarks is respectfully requested.

In the Office Action dated June 24, 2005, independent claims 22, 34 and 40, and dependent claims 23-27, 29-32, 36-39, 42 and 43 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,404,826 ("Schmidl") in view of U.S. Patent No. 6,292,519 ("Popovic"), while dependent claims 28, 35 and 41 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Schmidl* in view of *Popovic*, and further in view of U.S. Patent No. 6,639,934 ("Engström"). For the following reasons, it is respectfully submitted that all claims of the present application are patentable over the combination of the cited references.

The invention relates to a method and systems for controlling the transmission power of a signal which is received using one or more rake fingers, where a value for a controlled variable is determined and the controlled variable is compared to a target value. A discrepancy for the controlled variable is determined using at least the one or more rake fingers used to receive the signal and the discrepancy is taken into account when comparing the controlled variable to the target value (see Abstract; pg. 5, lines 27-34 of the specification).

Schmidl relates to a method for estimating signal-to-interference ratios of WCDMA signals (see col. 1, lines 13-15). *Schmidl*, however, relates to a different problem than that solved by the present invention recited in independent claim 22. *Schmidl* (col. 2, lines 63-64) teaches that there is a problem relating to large and abrupt variations in an RSSI value, which is "due to the limited number of pilot symbols available for averaging". *Schmidl* fails to teach the step of "determining a discrepancy for the controlled variable value based on information that

includes at least the one or more rake fingers used in receiving the signal,” as recited in amended independent method claim 22.

Schmidl fails to recognize that the varying number of rake fingers is a source of error in the RSSI measurement. The concept of correcting the measurement in some way that would depend on at least the one or more rake fingers (as recited in applicants’ claims) is not disclosed or suggested in *Schmidl*. Rather, *Schmidl* only suggests taking averages from the unknown data symbols to assist in equalling out the abrupt changes of the RSSI.

The Examiner cites *Popovic* in an attempt to cure the shortcomings of *Schmidl*, i.e., measuring a discrepancy between the controlled variable and an actual power signal. *Popovic* relates to a method for controlling mobile transmit power control in a CDMA communications system to compensate for saturation of measured SIR values used in controlling mobile transmit power (see col. 4, lines 30-35).

Popovic (col. 4, lines 37-38) teaches the use of a correction function to correct SIR measurements. *Popovic* (col. 4, lines 38-40) teaches that a measured signal-to-interference ratio (SIR) value is determined using measured energy and interference estimates. *Popovic* (col. 4, lines 40-42) states, the measured SIR value is corrected for non-linearity to obtain a corrected SIR value. *Popovic* (col. 4, lines 42-44) further states, the corrected SIR value may then be used in any number of applications such as to control the transmit power of mobiles in a mobile radio communications system.

However, *Popovic* also fails to teach the step of “determining a discrepancy for the controlled variable value based on information that includes at least the one or more rake fingers used in receiving the signal, as recited in amended claim 22. To the contrary, *Popovic* also concentrates on the small number of pilot symbols that are available for averaging, as well as the fact that at low SIR values the unpredictable fluctuations in the noise levels cause the variance of the SIR to increase. In the Office Action (pg. 3), the Examiner relies on the text at col. 8, lines 12-14 of *Popovic*; however, this text only refers to the use of a correction function $y2(x)$ that depends on a number of other parameters but not on one or more rake fingers. These disclosed parameters are the measured SIR value (x), two noise threshold values ($T0$ and $T1$) and a number of numerical correction factors ($D0, D1, K0, K1, C0, C1$ and $C2$; see table, top of col. 9). Different values have been assigned to these numerical correction factors depending on the spread factor, but since the spread factor has nothing to do with the number of rake fingers used for reception, this disclosure has no relevance to the method recited in Applicant’s independent

claim 22. Accordingly, *Popovic* fails to cure the deficiency of *Schmidl*, because it fails to teach or suggest what *Schmidl* lacks.

Engström relates to a method for controlling transmission power levels in a spread spectrum or Code Division Multiple Access (CDMA) cellular communication system (see col. 1, lines 8-11). However, *Engström* fails to cure the deficiencies of *Schmidl* or *Popovic* because there is nothing in *Engström* that teaches or suggests the claimed step associated with the one or more rake fingers, as recited in independent method claim 22. Accordingly, independent method claim 22 is patentable over the combination of *Schmidl*, *Popovic* and/or *Engström* and therefore, withdrawal of all the rejections under 35 U.S.C. §103 is in order, and a notice to that effect is earnestly solicited.

Independent claims 34 and 40 are system claims associated with the implementation of independent method claim 22. Accordingly, independent system claims 34 and 40 are patentable for the reasons discussed above with respect to the combination of *Schmidl*, *Popovic* and/or *Engström*.

In view of the patentability of independent claim 22, 34 and 40, for the reasons set forth above, dependent claims 23-33, 35-39 and 41-43 are all patentable over the prior art.

Based on the foregoing amendments and remarks, this application should be in condition for allowance. Early passage of this case to issue is respectfully requested.

Respectfully submitted,

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